

AMENDMENTS TO THE CLAIMS

1. (CURRENTLY AMENDED) An apparatus for variably scaling video picture signals comprising:

a first circuit configured to generate one or more data signals vertically scaled to a first value in response to (i) said video picture signals and (ii) one or more first control signals;

a second circuit configured to generate one or more output signals horizontally scaled to a second value in response to (i) said one or more data signals and (ii) said one or more first control signals, wherein said first value and said second value are independently selectable; and

an address generator circuit configured to generate said one or more first control signals, wherein said address generator circuit comprises a finite state machine configured to allow multiple luma picture requests and multiple chroma picture requests to follow in sequence and said finite state machine provides (i) an idle after chroma state configured to move to a chroma state in response to ~~a first predetermined condition~~ said multiple chroma picture requests and (ii) an idle after luma state configured to move to a luma state in response to ~~a second predetermined condition~~ said multiple luma picture requests.

2. (PREVIOUSLY PRESENTED) The apparatus according to claim 1, wherein said first circuit comprises (i) a luma circuit configured to generate a luma component of said data signals and

(ii) a chroma circuit configured to generate one or more chroma
5 components of said data signals.

3. (ORIGINAL) The apparatus according to claim 1,
wherein said second circuit is further configured to decimate and
interpolate said data signals.

4. (ORIGINAL) The apparatus according to claim 1,
wherein said apparatus is programmable to scale said output signals
to one or more display modes.

5. (ORIGINAL) The apparatus according to claim 4,
wherein said apparatus is configured to automatically reset a
starting address of a display line when an end of said display line
is not displayed.

6. (PREVIOUSLY PRESENTED) The apparatus according to
claim 4, wherein said one or more output signals are scalable to
any value in a range of 0.25 times to 4.0 times said video picture
signals.

7. (PREVIOUSLY PRESENTED) The apparatus according to
claim 2, wherein said luma circuit comprises:

a first memory circuit configured to buffer a luma
component of said video picture signals;

5 a first filter circuit coupled to said first memory circuit and configured to generate said luma component of said data signals; and

 a second memory circuit coupled to said first filter circuit and configured to buffer said luma component of said data
10 signals.

8. (PREVIOUSLY PRESENTED) The apparatus according to claim 7, wherein said chroma circuit comprises:

 a third memory circuit configured to buffer one or more chroma components of said video picture signals;

5 a second filter circuit coupled to said third memory circuit and configured to generate said one or more chroma components of said data signals; and

 a fourth memory circuit coupled to said second filter circuit and configured to buffer said one or more chroma components
10 of said data signals.

9. (CURRENTLY AMENDED) The apparatus according to claim 1, wherein said address generator circuit is configured to generate said first control signals in response to one or more second control signals from a microcontroller circuit.

10. (ORIGINAL) The apparatus according to claim 9, wherein said apparatus comprises a single-chip MPEG-2 decoder.

11. (PREVIOUSLY PRESENTED) The apparatus according to claim 7, wherein said first filter circuit further comprises one or more accumulator circuits configured to define a number of said video picture signals to be buffered in said first memory circuit
5 in response to said one or more first control signals.

12. (PREVIOUSLY PRESENTED) The apparatus according to claim 8, wherein said second filter circuit further comprises one or more accumulator circuits configured to define a number of said video picture signals to be buffered in said third memory circuit
5 in response to said one or more first control signals.

13. (ORIGINAL) The apparatus according to claim 1, wherein said second circuit controls an output rate of said data signals from said first circuit in response to said first value and said second value.

14. (PREVIOUSLY PRESENTED) The apparatus according to claim 1, wherein said second circuit comprises one or more accumulator circuits configured to select one or more of said data signals in response to said one or more first control signals.

15. (CURRENTLY AMENDED) An apparatus for variably scaling video picture signals comprising:

means for generating one or more data signals vertically scaled to a first value in response to (i) said video picture signals and (ii) one or more control signals;

means for generating one or more output signals horizontally scaled to a second value in response to (i) said one or more data signals and (ii) said one or more control signals, wherein said first value and said second value are independently selectable; and

means for generating said one or more control signals configured to provide a number of states configured to allow multiple luma picture requests and multiple chroma picture requests to follow in sequence, wherein said number of states includes (i) an idle after chroma state configured to move to a chroma state in response to ~~a first predetermined condition~~ said multiple chroma picture requests and (ii) an idle after luma state configured to move to a luma state in response to ~~a second predetermined condition~~ said multiple luma picture requests.

16. (CURRENTLY AMENDED) A method for variably scaling video picture signals comprising the steps of:

(A) generating one or more data signals vertically scaled to a first value in response to (i) said video picture signals and (ii) one or more control signals;

(B) generating one or more output signals horizontally scaled to a second value in response to (i) said one or more data

signals and (ii) said one or more control signals, wherein said first value and said second value are independently selectable; and

10 (C) generating said one or more control signals in response to a number of states configured to allow multiple luma picture requests and multiple chroma picture requests to follow in sequence, wherein said number of states includes (i) an idle after chroma state configured to move to a chroma state in response to a
15 ~~first predetermined condition~~ said multiple chroma picture requests and (ii) an idle after luma state configured to move to a luma state in response to a ~~second predetermined condition~~ said multiple luma picture requests.

17. (ORIGINAL) The method according to claim 16, wherein step B further comprises the steps of:

decimating said data signals; and
interpolating said data signals.

18. (PREVIOUSLY PRESENTED) The method according to claim 16, wherein step B further comprises the step of:

controlling an output rate of said data signals in response to said first value and said second value.

19. (ORIGINAL) The method according to claim 16, wherein said method further comprises the step of:

programmably scaling said output signals to one or more display modes.

20. (PREVIOUSLY PRESENTED) The method according to claim 19, wherein said step of programmably scaling said output signals further comprises the step of:

5 automatically resetting a display line address when some of a picture is not displayed.

21. (PREVIOUSLY PRESENTED) The apparatus according to claim 1, wherein said idle after chroma state is further configured to move to any of (i) said luma state, (ii) a BTMP after luma state, (iii) an SPU/VBI state, (iv) said idle after luma state, and
5 (v) said chroma state.

22. (PREVIOUSLY PRESENTED) The apparatus according to claim 1, wherein said idle after luma state is further configured to move to any of (i) said chroma state, (ii) a BTMP after chroma state, (iii) an SPU/VBI state, (iv) said luma state and (v) said
5 idle after chroma state.

23. (CANCELED)